

## ABSTRACT OF THE DISCLOSURE

Noise generating section 106 generates noise data of a white Gaussian noise, and noise adding section 107 adds received data and the noise data. Channel estimating section 108 performs channel estimation using the added data output from noise adding section 107. At this point, when a level of a preceding signal is equal to or less than that of the noise data, channel estimating section 108 is not capable of detecting the preceding signal. Accordingly, in the case where a received level of a preceding signal is extremely lower than that of a delayed signal and a noise level is further lower than the received level of the preceding signal, it is possible to perform pre-equalization using the delayed signal as a desired signal, whereby it is possible to maintain the reception characteristic of a communication partner.